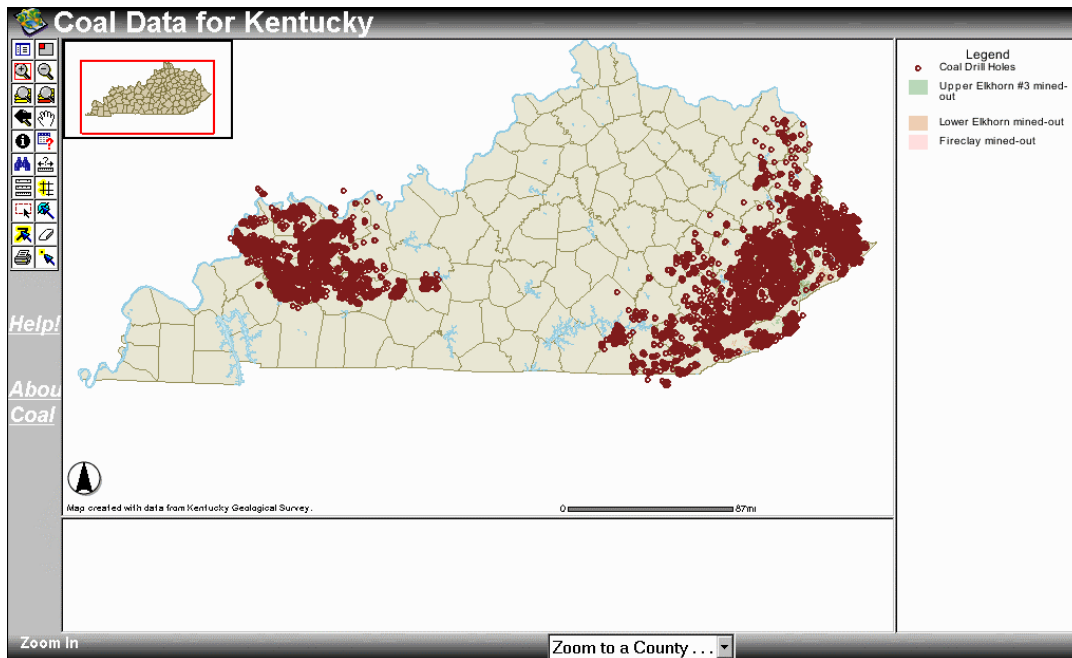# Quick Start

Probably the best way to use this tutorial is to print it out, then go through the steps on the live

map server, comparing what you see on the screen with the printed tutorial.

When you first start you will see a map of Kentucky showing county boundaries and locations of
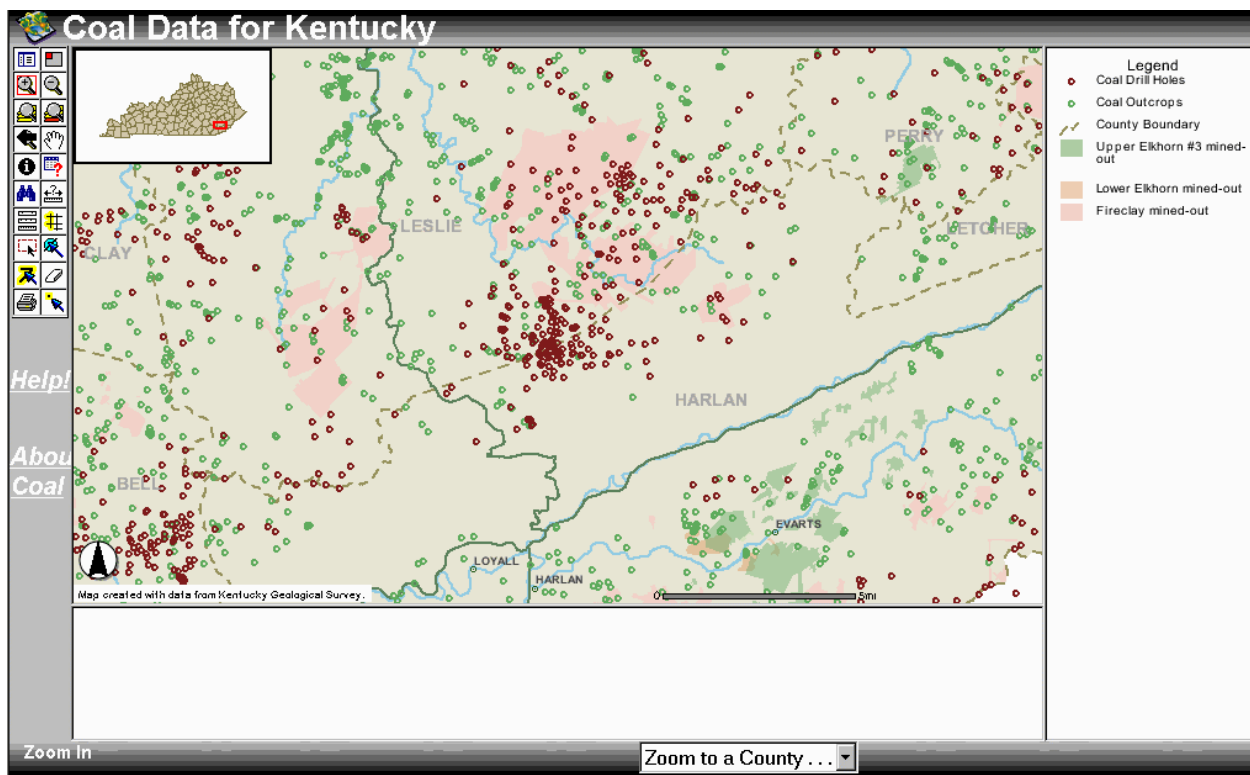
diamond drill hole data for coal.

Zooming Practice

Let's get in a bit closer. With your mouse, left-click on the Zoom In button.

Left-click anywhere on the state map. While holding the mouse button down, drag a box around

an area of interest and then release the mouse button.

The Map Display should now show a much closer view. Notice a few things:

a. The Overview Map has a red box on it. This shows the area of the map you are looking at.

b. If you zoomed in far enough, diamond drill holes can now be seen, and also the outcrop data is now visible. We have many of the layers set up so that they only turn on and off above or below a certain scale. This keeps the map from getting too cluttered.

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Legend and Layer List

Click the button "Toggle between Legend and Layer List," [icon], to turn on the Layer List. (Hold the cursor over the tool buttons to see what they do.) From the Layer List you can turn themes on and off, and also select the "active" theme, to be discussed later. In the present case, Coal Drill Holes is the active theme.
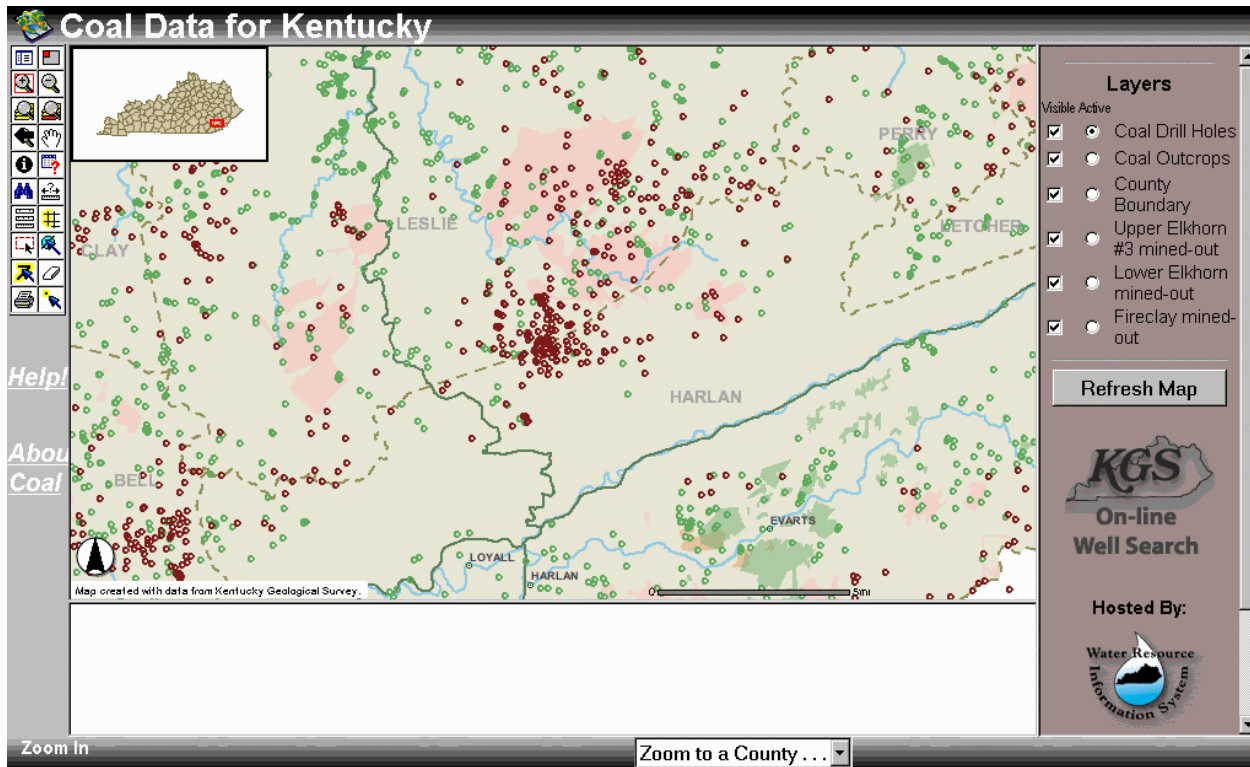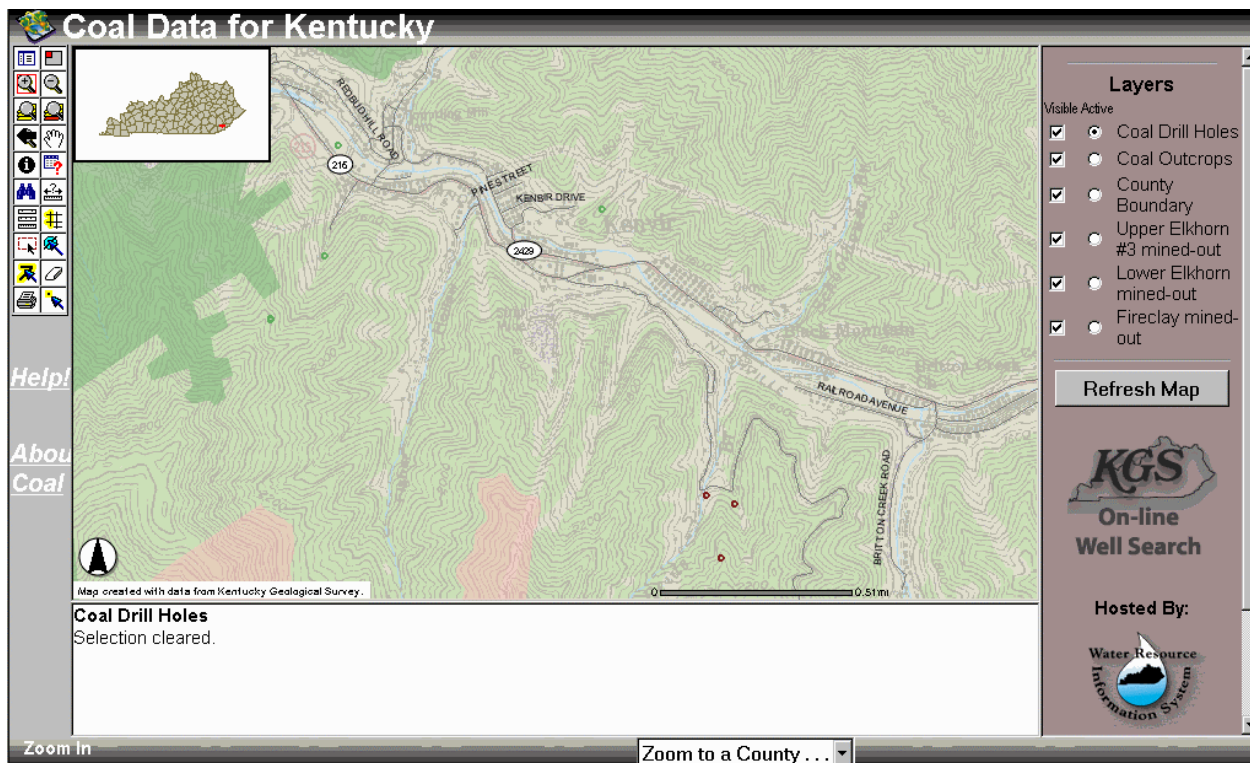

Toggle back to the Legend by clicking the [icon] button again.

Zooming Redux

Let's get a bit closer to the map. Click on the Zoom In tool, [icon], to make it active (see the red box around it). Click on the Map Display and zoom in closer. At the greatest zoom-in, the topographic map of the area appears as a base map.

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Let's Zoom Out of Here

We're in a bit close, so let's practice some Zooming Out. Left-click on the Zoom Out button 🔍. Now, move your mouse pointer over the center of the map and quickly left-click (just a quick click). The map will return, showing you a bigger area than was there before, as if you were
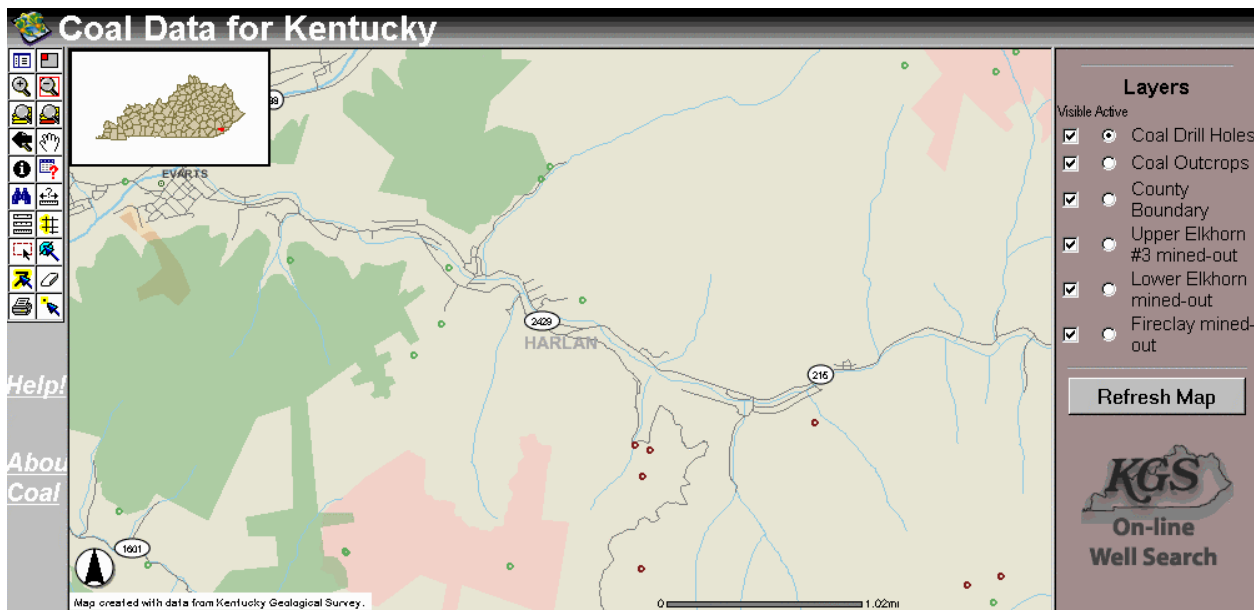
looking down while rising in a balloon.

Let's Pan

Let's move around this area a little.

Left-click on the Pan tool, 🖑, the one that looks like a hand. You'll see the red box now appears around this button.

Now we're going to do a similar thing to what we did with our first zoom. Move your mouse pointer over a point, say near the middle of the screen. Left-click on it. While holding the button down, drag the mouse pointer in any direction and release the button at a convenient point (as you're dragging, you'll see part of the map come with you). The map will redraw as though you had moved it over. Try this a few more times.

Where am I?

If you just want to know the latitude and longitude of a location, you can use the point locator tool. Click on the point of interest, in this case below, the Buckhorn Lake Dam. The lat-lon will be given and then the point will be drawn. (It takes a few seconds to redraw the map, patience.)

Zooming to a County

You can also move around by selecting a county from the dropdown list.
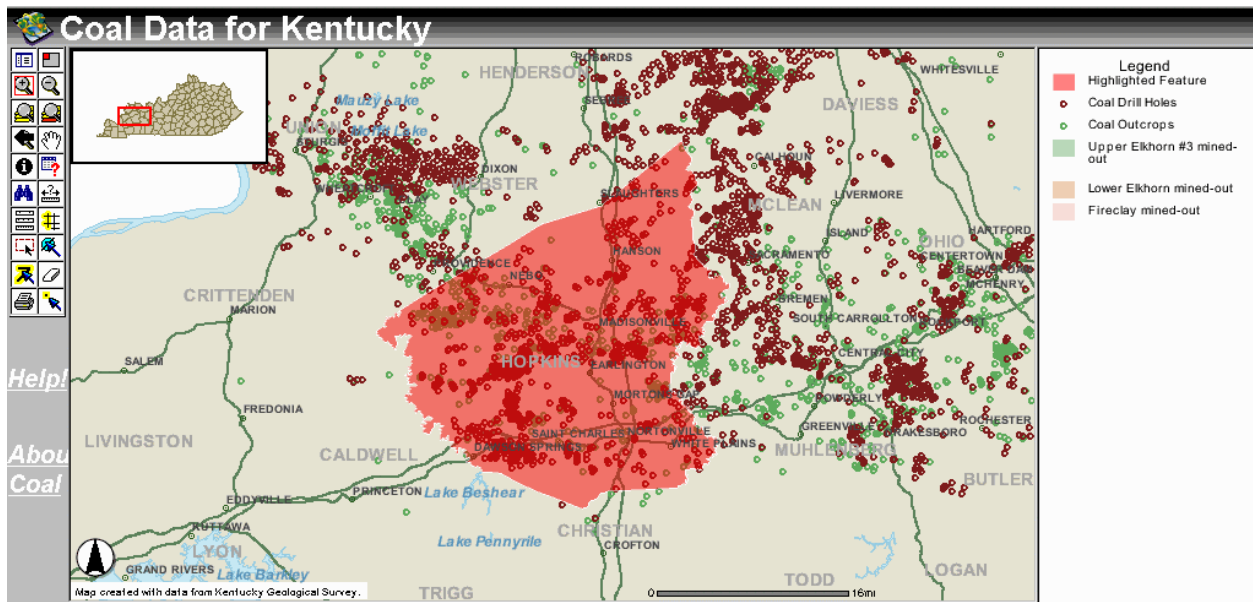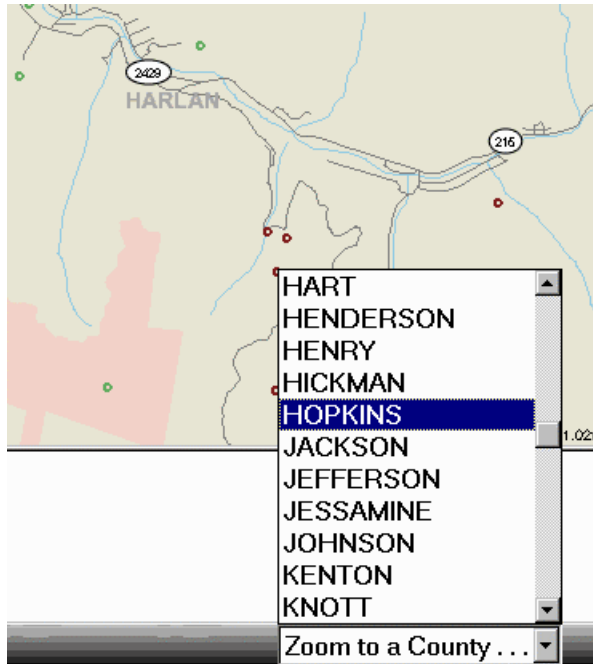
Use the "clear selection" button, ✐ , to remove the highlight of the county.

Turning Layers On and Off

We're now close enough to display a bit more information (if we did this before we'd be

overcome with a mish-mash of colored lines and dots on the screen).

Turn on the Layers List on the right side of the Map Display. Left-click in the little square box

beside "Coal Drill Holes" (under "Visible").

The check mark disappears from the box. Now, left-click on the "Refresh Map" button at the

bottom of the list (if you can't see it, you may have to scroll down a little way). You can turn

layers off and on. Turn coal drill holes back on by checking the box back on and left-clicking on

the "Refresh Map."

Quick Start

Getting Some Information About Layers

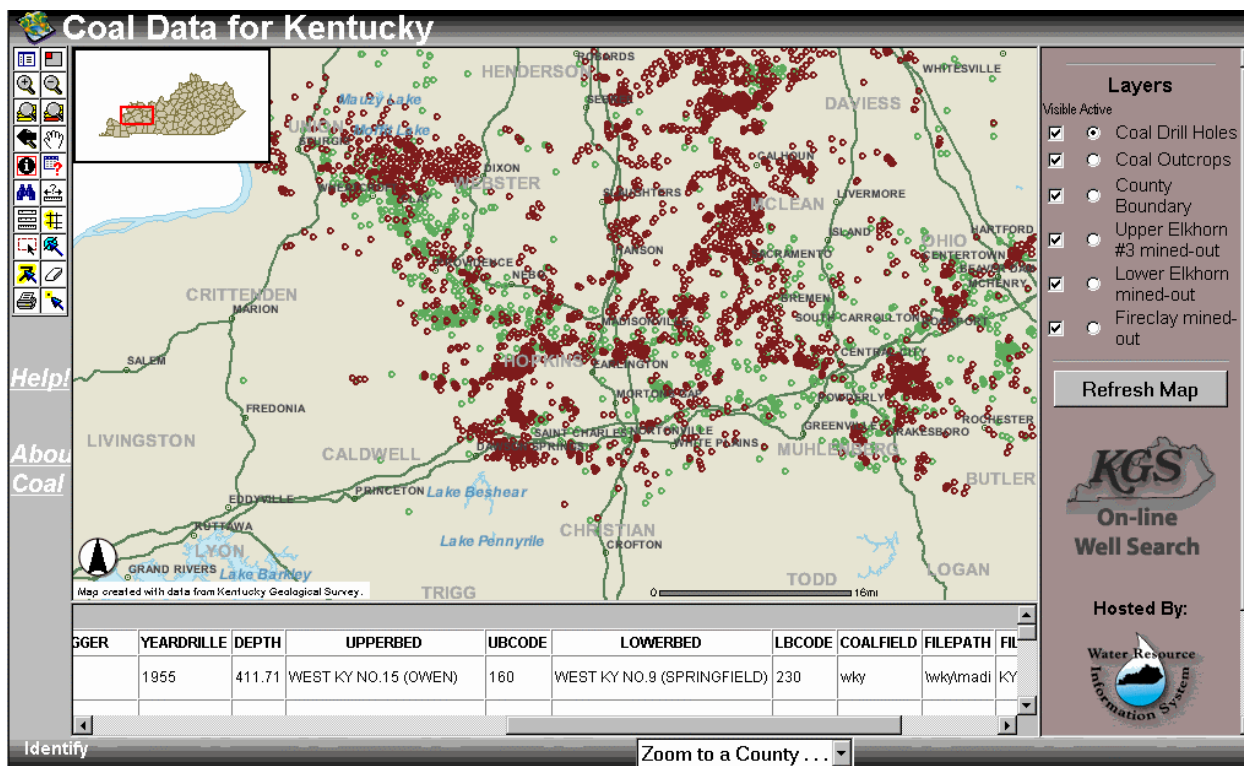Let's get some more information about drill hole sites.

Click in the round button (this is called a radio button) next to "Coal Drill Holes"

You have now made the Coal Drill Holes layer active (you'll see a message to that effect in the Bottom Text Display).

Click on the Identify button, ❶.

Now click on any well that you can see in the Map Display. In the Bottom Text Display you should now see a table that has information about that drill hole. Click on a few more and watch the table change.

Quick Start

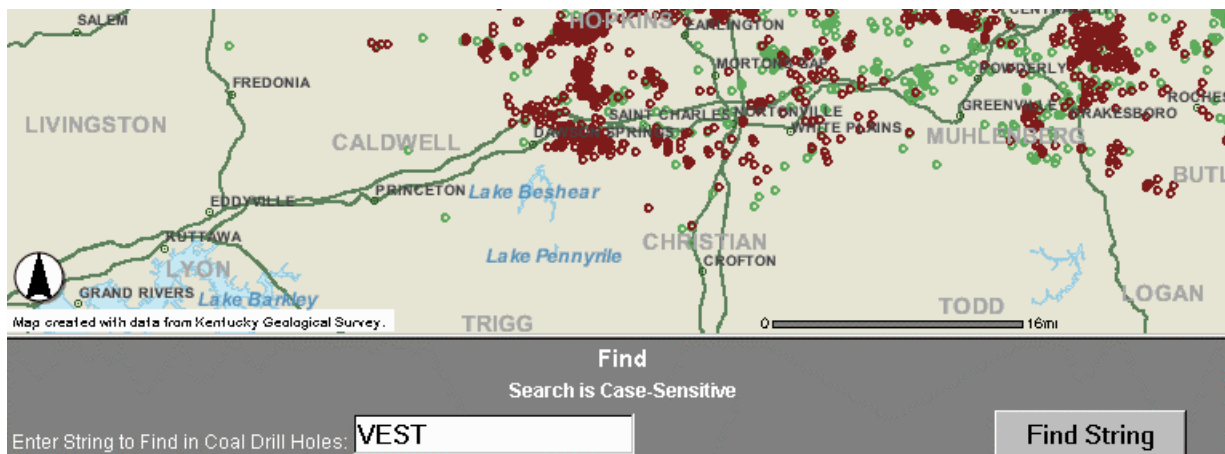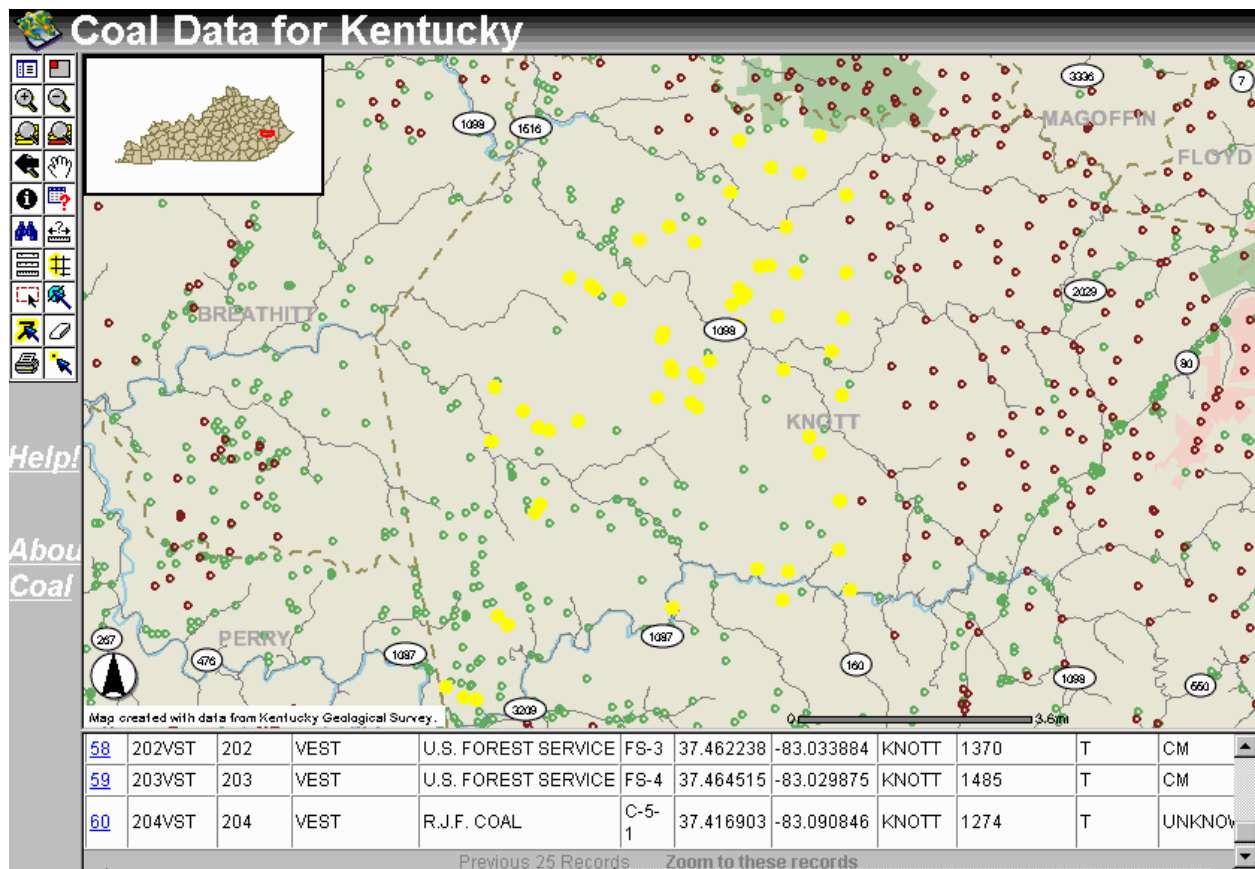**Finding Data**

Now, unless you know your Kentucky geography very well, it might take a while to Zoom and

Pan to find certain data, particularly if you were interested in data on a certain topographic map.

You can use the Click to Find button, 🔍, and type any part of a word you want to find. With

the Coal Drill Holes layer active, click 🔍 to execute the search.

Type in "VEST" for example, and all the drill holes on the Vest topographic quadrangle will be
selected. Data for the selected points will be listed in the table beneath the map. At the bottom of
the table you can either choose to show more records (or go back to previous records), if more
than 25 sites are selected (in this case there are 60), or you can zoom in on selected data. The
map will zoom to the area of the quad and highlight the selected points in yellow.

58	202VST	202	VEST	U.S. FOREST SERVICE	FS-3	37.462238	-83.033884	KNOTT	1370	T	CM
59	203VST	203	VEST	U.S. FOREST SERVICE	FS-4	37.464515	-83.029875	KNOTT	1485	T	CM
60	204VST	204	VEST	R.J.F. COAL	C-5-1	37.416903	-83.090846	KNOTT	1274	T	UNKNOV

Previous 25 Records   Zoom to these records
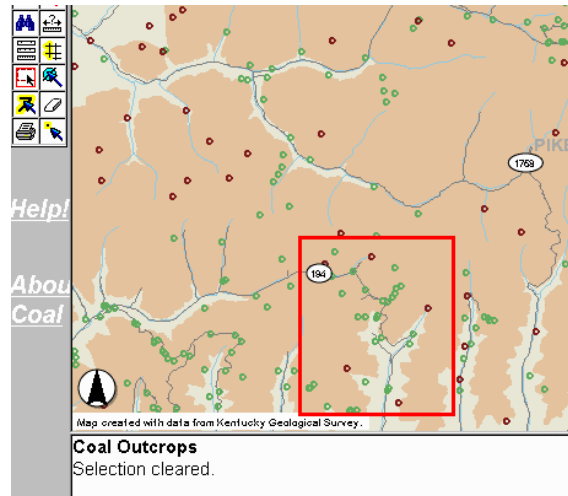
You can click on the Clear Selected Features button, ⌀, and the yellow highlight will disappear.
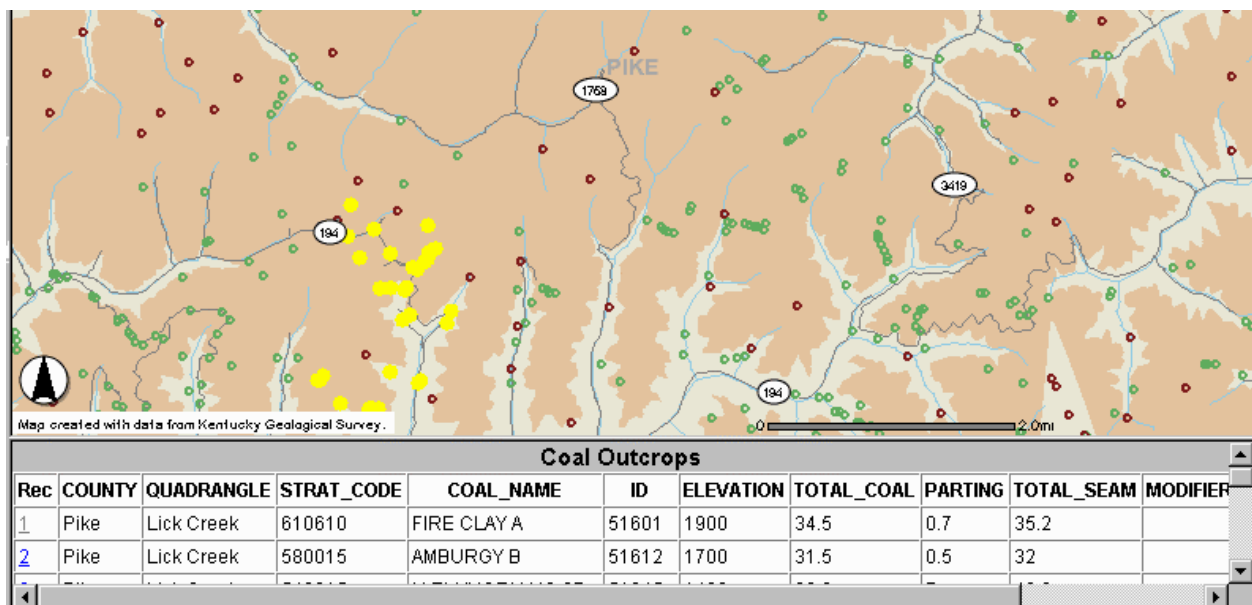
Quick Start

Selecting

You can select data using the Select by Area tool, .

In this case we made the Coal Outcrop layer active prior to selection. Selected data will be highlighted and shown in the table at the bottom of the map.


| Rec	COUNTY	QUADRANGLE	STRAT_CODE	COAL_NAME	ID	ELEVATION	TOTAL_COAL	PARTING	TOTAL_SEAM	MODIFIER
1	Pike	Lick Creek	610610	FIRE CLAY A	51601	1900	34.5	0.7	35.2	
2	Pike	Lick Creek	580015	AMBURGY B	51612	1700	31.5	0.5	32	

You will have to scroll to the right to see all the data fields.
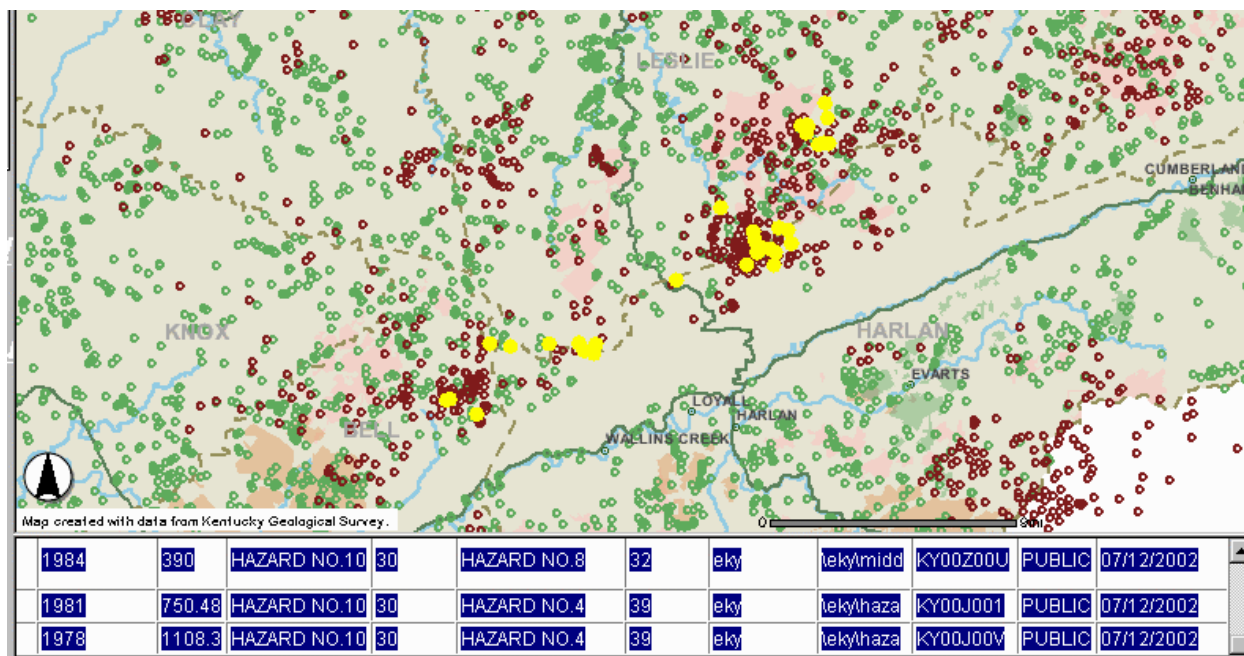
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Querying

You can use the Query tool, , to select data by attributes. The query expression is case sensitive. Build the query in the "Add to Query String" box, then Execute. Here we selected and zoomed to the sites with Hazard No. 10 as the upper bed.
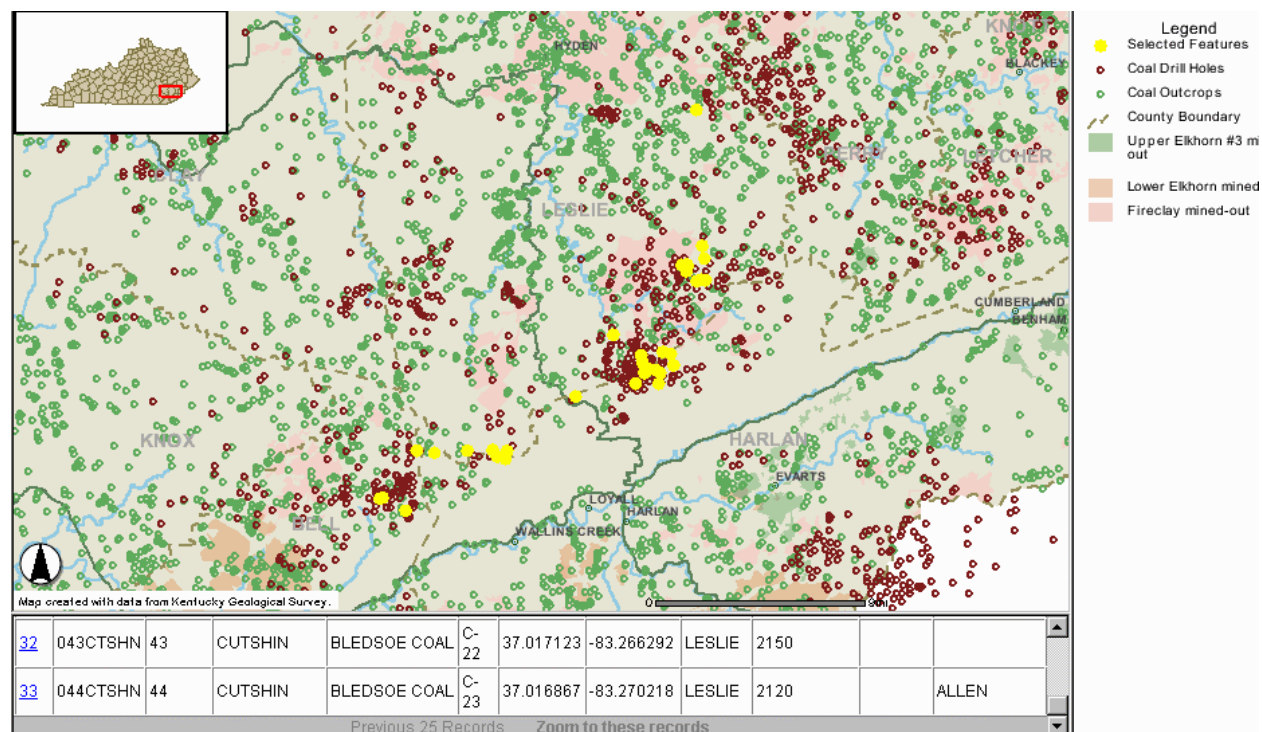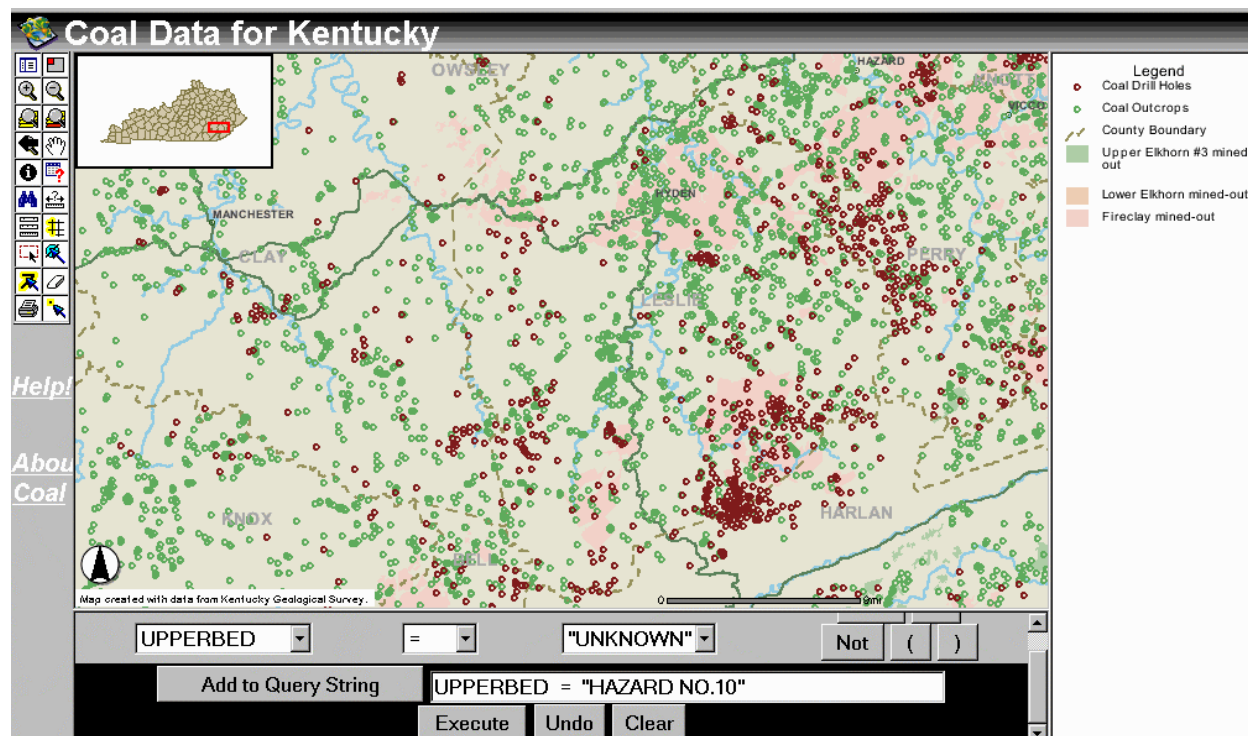
Quick Start

Downloading Data

Once you have selected the sites of interest, and the data are shown in the table below the map, you can highlight the data you want to download by clicking and dragging the mouse pointer.

Map created with data from Kentucky Geological Survey.

| 1984 | 390 | HAZARD NO.10 | 30 | HAZARD NO.8 | 32 | eky | \eky\midd | KY00Z00U | PUBLIC | 07/12/2002 |
| 1981 | 750.48 | HAZARD NO.10 | 30 | HAZARD NO.4 | 39 | eky | \eky\haza | KY00J001 | PUBLIC | 07/12/2002 |
| 1978 | 1108.3 | HAZARD NO.10 | 30 | HAZARD NO.4 | 39 | eky | \eky\haza | KY00J00V | PUBLIC | 07/12/2002 |

Press "Ctrl C" to copy the highlighted data. We recommend you then paste the data into a spreadsheet.
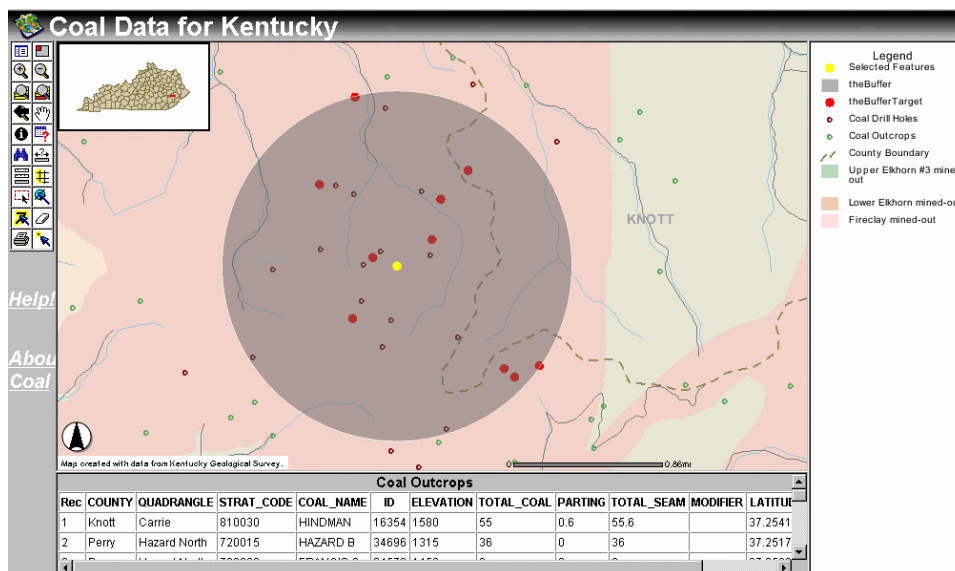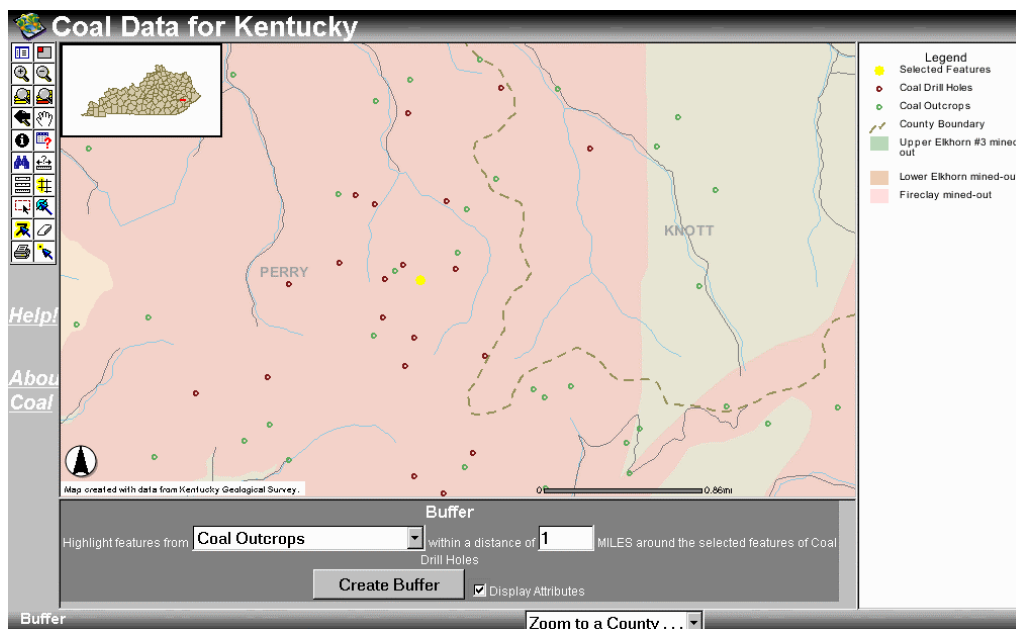
Open the spreadsheet and press "Ctrl V" to paste the data. (You may have to delete extraneous material and adjust cell widths.)

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Buffering Selected Data

Once you have selected features of interest, you can use the buffer tool, ⊞ , to find other features within a given distance of the selected features. In the example below, a borehole was selected in Perry County, and we want to see, and display the attributes, of all coal outcrops within 1 mile.


Rec	COUNTY	QUADRANGLE	STRAT_CODE	COAL_NAME	ID	ELEVATION	TOTAL_COAL	PARTING	TOTAL_SEAM	MODIFIER	LATITU
1	Knott	Carrie	810030	HINDMAN	16354	1580	55	0.6	55.6		37.2541
2	Perry	Hazard North	720015	HAZARD B	34696	1315	36	0	36		37.2517
3			790900	FRANCIS 0	34570	1450	9	9			37.2501

The 15 outcrops within the 1-mile buffer zone are shown above, highlighted in red.

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Selecting Data with a User-Defined Point, Line, or Polygon

If you are interested in data within some distance from an arbitrarily defined point, line, or polygon, you can use the Buffer Shape tool, .

Select a buffer distance, and then click on the map. It takes a few seconds for the new points to
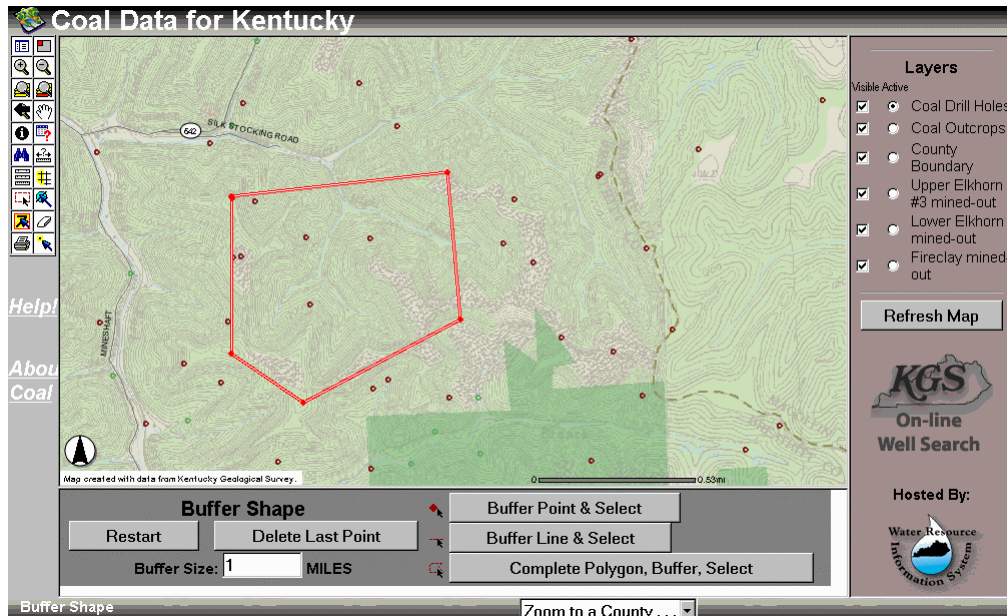
draw, so be patient. We are interested in all borehole data within 1 mile of our property. Once the buffer is created, the associated attributes of selected boreholes are displayed.